HUNGARY

MATE, Janos, Dr, physician-lieutenant colonel, candidate of medical sciences; [affiliation not given].

"The Importance of the Use of Vaccinations in the Current Mode of Prevention of Contagious Diseases in the Armed Forces."

Budapest, Honvedorvos, Vol XV, No 3, July-Sept 1963, pages 204-216.

Abstract: One of the defenses of a possible biological warfare is preventive vaccination. In this connection reference is made to the biological warfare research conducted by the US at Camp Detrick. A peace-time program of preventive vaccination is advocated against the danger of natural infection during wartime as well as against the possible outbreaks which result from biological warfare. The factors which influence the effectiveness of vaccinations are described. Among the techniques, aerogen immunization is considered to be the most suitable for mass treatment. This was developed in Russia but has not become widespread yet. The effect of radiation on immune body production is discussed briefly. Virus immunity and vaccination with viruses is also mentioned. Reports on simultaneous vaccination with various antigens and certain synergistic effects are quoted from the literature. The available vaccination possibilities against most of the diseases which present a danger to adults or may play a role in biological warfare are discussed in detail. The vaccination programs of the French, US, German and Soviet armies are quoted and recommendations made. 24 Eastern European, 19 Western references.
1/1

MATE, Jozsef

The work of the interprofessional committee at Csanadpalota. Munka 11 no.8:11 Ag '61.

1. Csandpalotai Szakmakozi Bizottsag titkara.

(Hungary—Trade unions)

MATE, K.;PREKOP, D.;ZELLNER, P.

Cortisone treatment of rheumatoid arthritis and a perusal of the present status of the ACTH and cortisone problem. Orv. hetil. 93 no. 11:338-343 16 Mar 1952. (CIML 23:3)

1. Doctors. 2. Department of Internal Medicine (Director — Head Physician — Dr. Pal Zellner), Metropolitan Peterfy Sandor-utcai Hospital).

MATE, Karoly, dr.; ZELLNER, Pal, dr.

New facts about the Adams-Stokes syndrome. Orv. hetil. 95 no.28: 765-766 11 July 54.

1. A Fovarosi Tetenyi-uti Korhaz I. Belosztalyanak (igazgato-belgyogyasz foorvos: Zellner Pal, dr.) kozlemenye

(HEART BLOCK
Adams-Stokes synd. with paroxysmal tachycardia, strophanthin-diaphyllin-procaine ther.)
(STROPHANTHIN, therapeutic use
Adams-Stokes synd. & ventricular tachycardia, with diaphyllin & procaine)
(PROCAINE, therapeutic use
Adams-Stokes synd. & ventricular tachycardia, with diaphyllin & strophanthin)

KERTESZ, Tivadarne, dr.,; MATE, Karoly, dr.

Postcholecystography pseudoalbuminuria. Orv. hetil. 96 no.19: 522 8 May 55

1. A Tetenyi-uti korhaz laboratoriumanak (foorvos: Paloczy Jozsef dr.) es I. belosztalyanak (foorvos: Zellner Pal dr.) kozlemenye (Hozetes kozlemeny)

(ALBUMINURIA, adventitious, postcholecystography)
(CHOLECYSTOGRAPHY, complications, albuminuria, adventitious)

MATE, Karoly, Dr.; KISKOSZEGI, Andor, Dr.

Clinical data on dermatitides caused by plants and light. Orv. hetil. 98 no.43:1194-1195 27 Oct 57.

1. A Tetenyi uti Korhaz (igazgato: Zellner Pal dr.) III. sz. Utokezelo Belgyogyaszati Osztalyanak (mb. vezeto: Mate Karoly dr.) es z XIX. ker. Bor- es Nemibeteggondozonak (vezeto-foorvos: Temesvary Laszlo dr.) kozlemenye.

(DERMATITIS
phytophotodermatitis, clin. data (Hun))

MATE, Kalman, Dr.; BATORI, Gabor, Dr.; CSEKE, Janos, Dr.; TRIZNA, Zoltan, Dr.

Use of chlorpromazine in the therapy of emphysema. Orv. hetil. 99 no.24: 810 15 June 58.

1. A Tetenyi uti Korhaz (igazgato: Zellner Pal dr.) III. sz. Utokezelo Belosztalyanak kozlemenye.

(EMPHYSEMA, PULMONARY, ther.
chlorpromazine (Hun))
(CHLORPROMAZINE, ther. use
emphysema, pulm. (Hun))

MATE, Karoly, dr.

Leprosy. Elovilag 4 no.4:33-38 O-D '59.

MATE, Karoly; SAGI, Bela

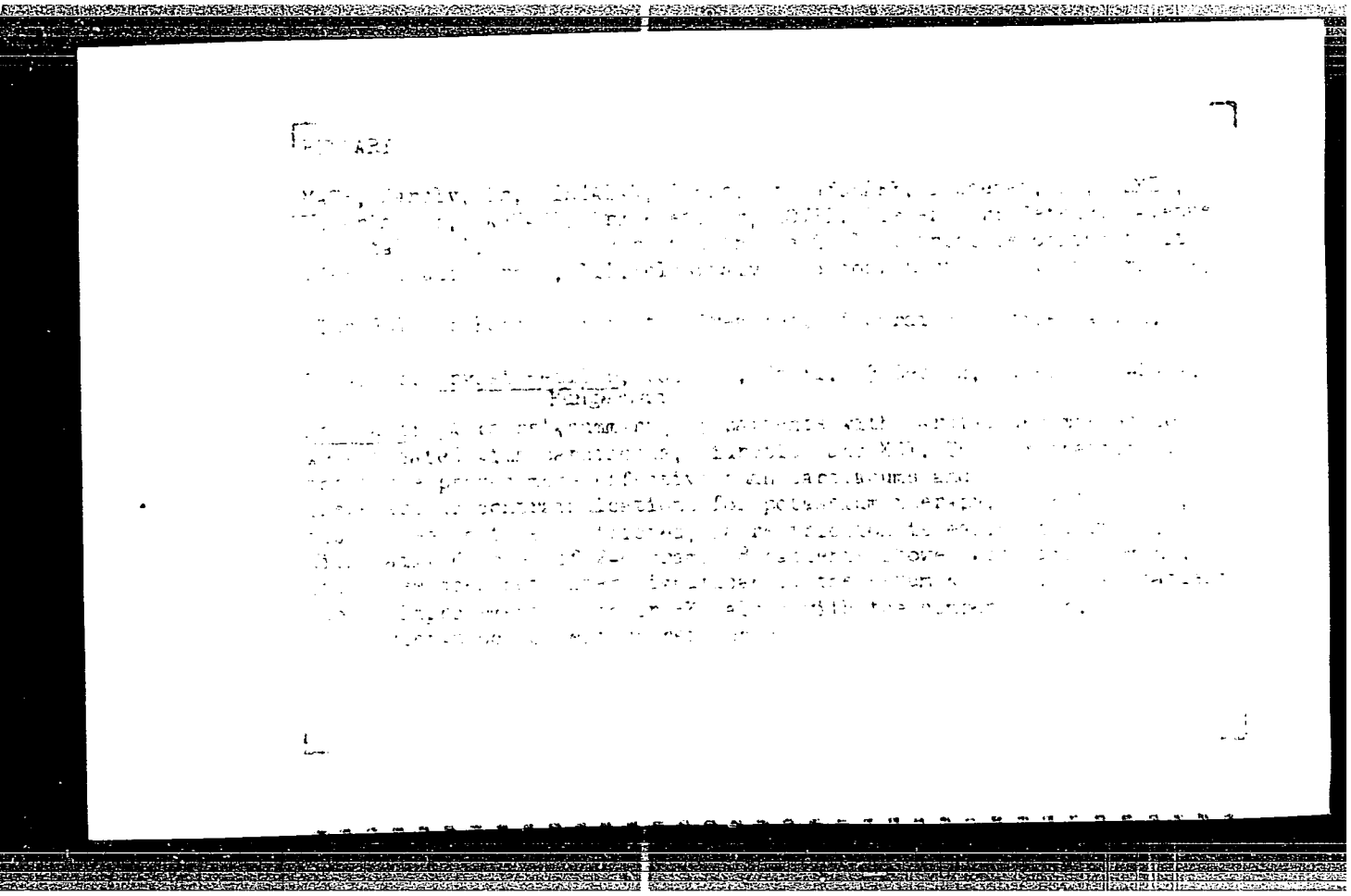
Observations on the therapeutic effect of andaxin. Orv. hetil. 100 no.16:581-582 19 Apr 59.

1. A Tetenyi-uti Korhaz (igazgato: Zellner Pal dr.) III. sz. Belgyogyaszati Osztalyanak kozlemenye.
(MEPROBAMATE, ther. use
clin. evaluation (Hun))

KISS, Istvan, dr.; MATE, Karoly, dr.

Simultaneous appearance of thrombocytopenic thrombotic purpura and disseminated lupus erythematosus. Orv.hetil. 100 no.43: 1562-1564 O '59.

1. A Fov. Tetenyi uti korhaz (ig. foorvos: Zellner Pal dr.) III. sz. Belosztolya es Korbonctani osztalyanak (foorvos: Kiss Istvan dr.) kozlemenye.
(LUPUS ERYTHEMATOSUS compl.)
(PURPURA, THROMBOPENIC compl.)



BRANDSTEIN, Laszlo dr.; GREGUSS, Sandor, dr.; LITTMANN, Imre, dr.;
MATE, Karoly, dr.

Hyperinsulinism diagnosed as epilepsy for several years. (Pancreatic islet cell adenoma). Orv hetil 104 no. 30 28 Jl '63.

1. Fovarosi Tanacs VB. Tetenyi uti Korhaz, I. Sebeszet, Idegosztaly es III. Belosztaly.
(HYPERINSULINISM) (EPILEPSY) (ISLET CELL TUMOR)

MATE, Karoly, dr.; FRIED, Laszlo, dr.

On giant gastric ulcer in old age. Orv. hetil. 105 no.24: 1114-1118 14 Je'64

1. Fovarosi Tanacs, Tetenyi uti Korhaz, III. Belosztaly es Orvostovabbkepzo Intezet, Rontgenologiai Tanszek.

IVANYI, Janos, dr.; FRIED, L.; MATE, K.

Ulcerative diseases in old age. Orv. hetil. 105 no.34:1627 23 Ag '64.

HANGOS, Gyorgy, dr.; BIRTALAN, Gyozo, dr.; MATE, Karoly, dr.; THURZO, Kezso, dr.

On the treatment of gastroduodenal ulcer in old age. Orv. hetil. 106 no.20:927-928 16 My'65.

1. Orvostovabbkepzo Intezet, Sebeszeti Tanszek, Fovarosi Tetenyi uti Korhaz, III. Belosztaly es Fov. Csepeli Korhaz, Sebeszeti Osztaly.

MATE, L.

From a 2/1 tube radio receiver the "Hanta 573L V" world-wide receiver.

P. 169 (RADIOTECHNIKA) Budapest, Hungary Vol. 7, No. 6, June 195[illegible].

SO: Monthly Index of East European Accessions (EEAI) Vol. 6, No. 11 November 195[illegible]

MATE, L.

On the problem of Mikusinski's logarithm. Mat kut kozl MTA 7 Ser.A no.1/2:117-124 '62.

MATE, Laszlo

On the expansion of operator semi-groups. Mat kozl MTA 12 no.3: 217-222 '62.

MATE, Laszlo

The abstract Cauchy problem and operator semigroups. Mat lapok 13 no.1/2:205-206 '62.

MATE, L.

Semigroup of operators in Frechet space. Dokl. AN SSSR 142 no.6:1247-1250 F '62. (MIRA 15:2)

1. Politekhnicheskiy institut, Budapesht, Vengerskaya Narodnaya Respublika. Predstavleno akademikom V.I.Smirnovym.
(Spaces, generalized)
(Operators(Mathematics))

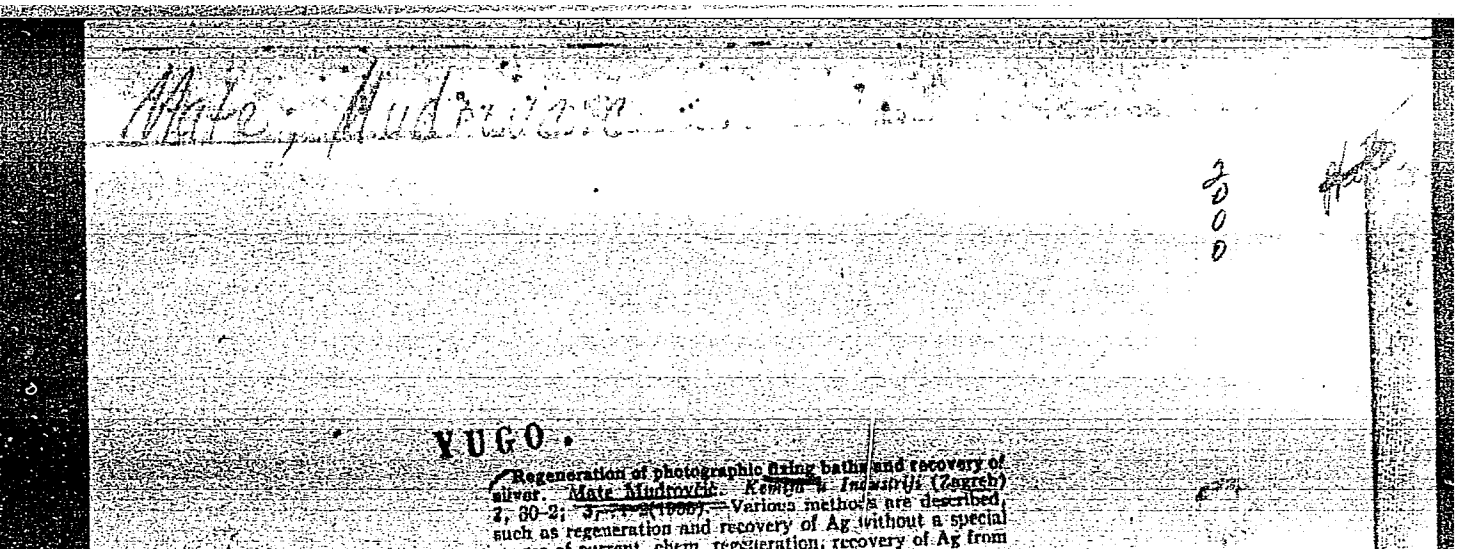
DALLOS, Kalman; MATE, Laszlo

Machine tools with automatic control. Pt.1. Gepgyartastechn 3 no.5:172-175 My'63.

1. Budapesti Szerszamgepgyar (for Dallos). 2. Finommechanikai Vallalat (for Mate).

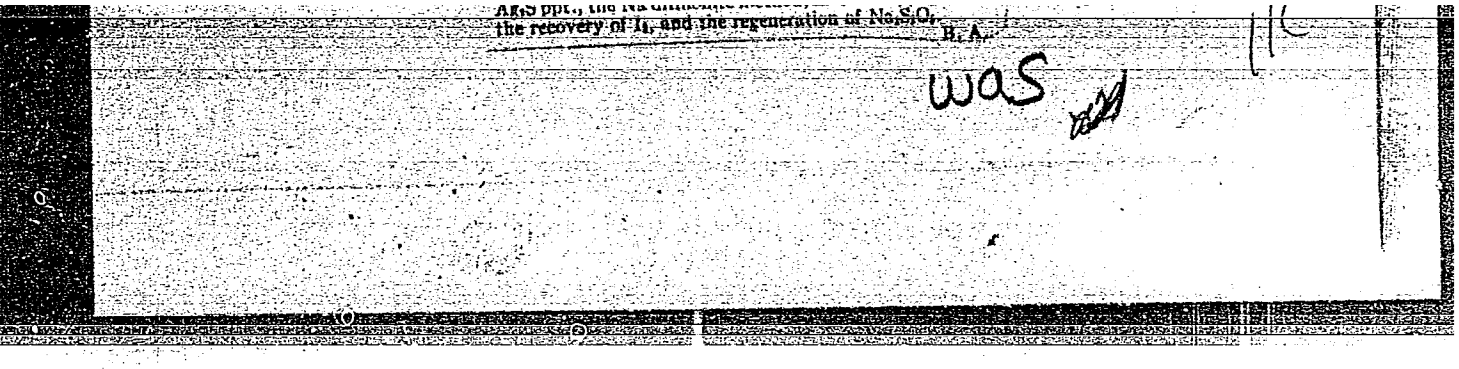
SCHMIDT, Egon; STERBETZ, Istvan; GYERESSY, Antal; SCHAFER, Lajos; TERNYAK, Jeno; MATE, Laszlo; GEREBY, Gyorgy; BERETZK, Peter, dr.

Data on the avifauna of the region between the Danube and the Tisza. Aquila 69/70:258-260 '62-'63 [publ. '64].



YUGO

Regeneration of photographic fixing baths and recovery of silver. Mate Mudrovčić. *Kemija u Industriji* (Zagreb) 7, 30-2; [illegible] (1958). Various methods are described, such as regeneration and recovery of Ag without a special [illegible] electrolytic regeneration; recovery of Ag from



MATE, M.

2 5

1465. **Micro-method for detection of mercury.** I. Kraljić and M. Mate (Inst. Inorg. Anal. and Phys. Chem., Zagreb Univ., Yugoslavia). *Bull. Sci. Yougosl.*, 1956, 3 (1), 5 (in French).—The reagent is a saturated aq. soln. of nitrosobenzene kept at a pH of 4·1 by adding 0·1 vol. of 1 *M* acetate buffer. To a drop of this reagent are added 0·05 ml of the soln. containing Hg^{2+} and then 0·02 ml of aq. $K_4Fe(CN)_6.3H_2O$ (0·2%). The reactions are—

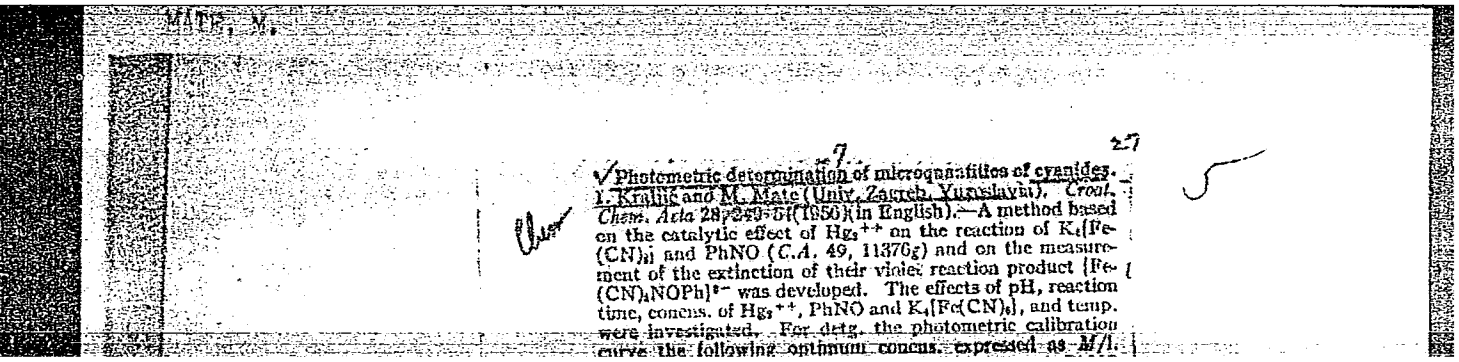
$$Fe(CN)_6^{4-} + Hg^{2+} + H_2O \rightarrow Fe(CN)_5H_2O^{3-} + HgCN^+$$

$$Fe(CN)_5H_2O^{3-} + C_6H_5NO \rightarrow Fe(CN)_5NOC_6H_5^{3-} + H_2O$$

(*cf. Brit. Abstr. AI*, 1953, 593). The violet pentacyanonitrosobenzene complex is determined spectrophotometrically. A blank test is carried out with water in place of the ferrocyanide solution. The limit of identification is 0·002 μg of Hg, and the concn. limit 1 in 25×10^6. When present in concn. greater than that of Hg^{2+}, the ions Ag^+, Au^{3+}, Fe^{3+}, Cu^{2+}, UO_2^{2+} and I^- interfere.

A. R. PEARSON

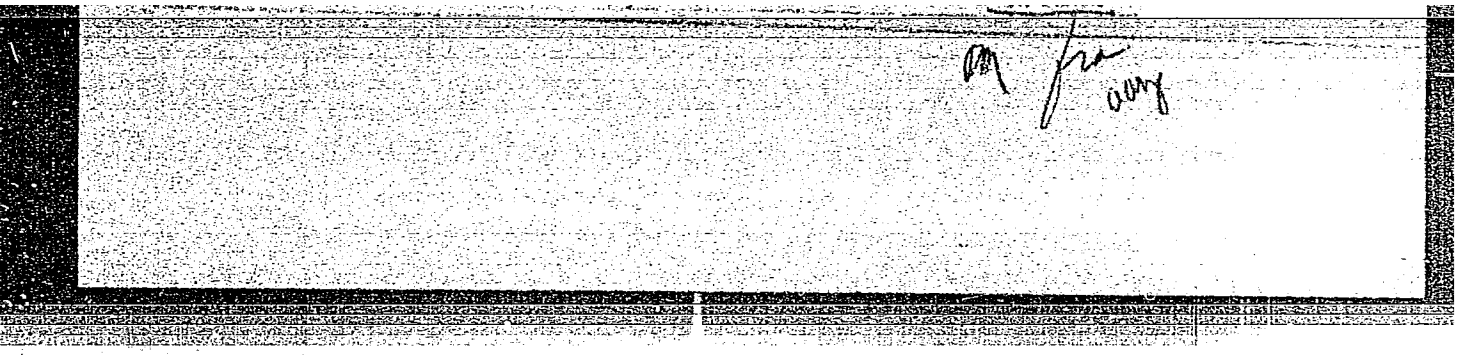
Chem



MATE, M.

27

√Photometric determination of microquantities of cyanides. I. Kralik and M. Mate (Univ. Zagreb, Yugoslavia). *Croat. Chem. Acta* 28, 249-51 (1950) (in English).—A method based on the catalytic effect of Hg_2^{++} on the reaction of $K_4[Fe(CN)_6]$ and PhNO (*C.A.* 49, 11376g) and on the measurement of the extinction of their violet reaction product $[Fe(CN)_5NOPh]^{4-}$ was developed. The effects of pH, reaction time, concns. of Hg_2^{++}, PhNO and $K_4[Fe(CN)_6]$, and temp. were investigated. For detg. the photometric calibration curve the following optimum concns. expressed as *M*/l.



MATE, M

5

2524. A new sensitive and selective spot test for mercury. I. Kraljić and M. Mate (The Univ., Zagreb, Yugoslavia). Croat. Chem. Acta, 1956, 28 (4), 273–277 (in English).—The test is based on the catalytic effect of Hg^{2+} on the decomposition of $Fe(CN)_6^{4-}$ in the presence of nitrosobenzene (cf. *Anal. Abstr.*, 1957, 4, 2541) whereby the pink or violet water-sol. $[Fe(CN)_5.NO.C_6H_5]^{3-}$ is formed. The sensitivity is 0·002 µg of Hg (in 0·05 ml) or a limiting concn. of 1 in 25 × 10^6. *Procedure*—To one drop of sample soln. on a spot-plate, or in a test-tube, add one drop of a mixture (1 + 9) of acetate buffer and saturated aq. nitrosobenzene, followed by one drop of a 0·5% soln. of $K_4Fe(CN)_6.3H_2O$. Warm to 60°, adding another drop or two of nitrosobenzene if a spot-plate is used. Sufficient buffer should be present to maintain the pH at 4·1, and for concn. of Hg < 10^{-6} *M* a blank should be run simultaneously. Silver (> 5 × 10^{-4} *M*) and Au^{3+} (> 10^{-4} *M*) also give this reaction; other interfering cations (Fe^{3+}, Cu^{2+}, UO_2^{2+}) can be suitably eliminated. Iodide in concn. > 10^{-4} *M* interferes seriously, but most other anions in concn. up to ≃ 0·01 *M* can be tolerated. W. J. Baker

Chem

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001032820006-9"

YUGOSLAVIA/Analytical Chemistry - Analysis of Inorganic Substances. E.

Abs Jour : Ref Zhur - Khimiya, No 9, 1958, 28490

Author : Kraljic, I. and Mate, M.

Inst : Yugoslav Academy of Sciences.

Title : A New Photometric Method for the Microdetermination of Cyanides.

Orig Pub : Bull scient Conseil acad RPFY, 3, No 3, 75 (1957) (in German)

Abstract : A new method is described for the determination of CN^-. The method is based on the inhibiting action of CN^- on the reaction between $Fe(CN)_6^{4-}$ and nitrobenzene, which is catalyzed by mercury. The concentration of the violet $[Fe(CN)_5C_6H_5NO]^{3-}$ complex formed in this reaction

Card 1/2

MATE, Matyas, Dr.

On the training and refresher courses given to automobile traffic specialists. Auto motor 13 no.17:3 S '60.

1. A KPM Autokozlekedesu Tanintezetenek igazgatoja.

MATE, Matyas, dr.

What we have done and what we should do to reduce traffic accidents. Auto motor 14 no.4:3 F '61.

MATE, Matyas, dr.

Activity and tasks of the Automotive Transportation School, Ministry of Transportation and Posts. Autc motor 16 no.2: 3-4 21 Ja '63.

1. Kozlekedes- es Postaugyi Miniszterium Autokozlekedesi Taninteзetenek igazgatoja.

MATE, Matyas, dr.

Activity and tasks of the School of Automotive Transportation of the Ministry of Transportation and Posts. Kozleked kozl 19 no.4:54-56 27 Ja '63.

MATE, Sandor

Work competition in honor of the 8th Congress of the Hungarian Socialist Workers Party. Vasut 12 no.5:1 31 My '62.

MATE, Sandor

Experiences of the international socialist work competition.
Vasut 12 no.6:24 30 Je '62.

MATE, Sandor

Correlations between socialist competitions and objectives prescribed in the plan. Vasut 14 no. 4:4-7 Ap '64.

MATE, Sandor [Mate, Sandor] (Budapesht)

Professional training of railroad specialists in the Hungarian People's Republic. Zhel.dor.transp. 44 no.9:48-51 S '62.

1. Nachal'nik Upravleniya kadrov, truda i zarabotnoy platy zheleznykh dorog Vengerskoy Narodnoy Respubliki.
(Hungary--Railroads--Employees--Education and training)

MATE, Sandor; TESZERI, Gyorgy

Revision of wages for the workers of the Hungarian State Railways. Vasut 14 no. 1: 7-10 Ja '64.

MA[illegible], Sandor

Increasing labor productivity of the traveling personnel of traffic and traction service. Vasut 14 no.9:8-9 S '64.

. MATE, Sh.

"The Effect of the Time of Plowing of Grass Layers on the Physicochemical Properties of Turf-Podzolic Soils and on the Yield of Later Crops." Cand Agr Sci, Leningrad Agricultural Inst, Min Higher Education USSR, Leningrad, 1955. (KL, No 14, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

KASHSHAI, D' [Kassai, D.]; MATE, V.

Utilization of the vascular reaction to nicotinic acid for studying changes in the function of the nervous system in psychiatry. Zhur. nevr. i psikh 61 no.8:1232-1240 '61.
(MIRA 15:3)

1. Gosudarstvennyy neyro-psikhiatricheskiy institut (direktor i glavnyy vrach B. Mariya), Budapesht.
(BLOOD VESSELS) (NICOTINIC ACID) (NERVOUS SYSTEM)

KASHSHAI, D. [Kassai, D.]; MATE, V.

Effect of nicotinic acid on the skin temperature of patients with various states of schizophrenia. Zhur. nevr. i psikh. 61 no.11: 1688-1698 '61. (MIRA 15:2)

1. Gosudarstvennyy neyropsikhiatricheskiy institut (direktor i glavnyy vrach B. Mariya), Budapesht.
(NICOTINIC ACID--PHYSIOLOGICAL EFFECT)
(SKIN) (SCHIZOPHRENIA) (BODY TEMPERATURE)

Mate, Z.

HUNGARY / Chemical Technology. Cellulose and Its Derivatives. Paper. H-33

Abs Jour: Ref Zhur-Khimiya, No 14, 1959, 51956.

Author : Mate, Z.
Inst : Not given.
Title : Utilization of New Raw Materials for Paper.

Orig Pub: Technika (Magyar), 1958, 2, No 12, 5.

Abstract: With the expansion of world production of paper, a respective expansion in the utilization of greater varieties of raw materials for its manufacture is also taking place. Deciduous varieties (particularly poplar), straw, etc., are now used. Presented are data pertaining to technological processes adapted to this type of raw material (particularly the monosulfite process); to the production of high yield pulp; to the developed continuous methods and

Card 1/2

MAGYAR, Imre,; VAGO, Erzsebet,; MATE, Zoltan.

Carbohydrate and kalium metabolism. 3. Effect of glycogen contents of the liver and the muscles on the kalium metabolism. Kiserletes orvostud. 7 no.1:66-72 Jan 55.

1. Budapesti Orvostudomanyi Egyetem I. sz. Belklinikaja.
(POTASSIUM, metabolism, eff. of glycogen contents in liver & musc.)
(GLYCOGEN
liver & musc., eff. on potassium metab.)
(LIVER, metabolism
potassium, eff. of glycogen contents)
(MUSCLES,
glycogen in, eff. on potassium metab.)

MAGYAR, Imre,; VAGO, Erzsebet,; MATE,Zoltan.

Carbohydrate and kalium metabolism. 4. Levulose and kalium.
Kiserletes orvostud. 7 no.1:72-77 Jan 55.

1. Budapesti Orvostudomanyi Egyetem I. sz. Belklinikaja.
(FRUCTOSE, effects
on liver metab., relation to potassium)
(POTASSIUM, effects
on liver metab., relation to fructose)

MAGYAR, Imre, dr..; VAGO, Erzsebet, dr..; MATE, Zoltan, dr..; GRASZ, Erzsebet,; SZUSZKKAR, T.Judith,technikai segitsegevel.

Effect of euphyllin on hepatic circulation rate. Orv. hetil. 96 no.11:287-290 13 Mar 55

1. A Budapesti Orvostudomanyi Egyetem I. sz. Belklinikajanak igazgato: Rusznyak Istvan dr. egyetemi tanar) kozlemenye.
(AMINOPHYLLINE, effects,
on liver circ. rate)
(LIVER, blood supplh,
eff. of aminophylline on circ. rate)

ZOMBORI, Janos, okleveles vegyeszmernok; MATE, Zoltan, okleveles vegyeszmernok

Complex utilization of wood. Technika 8 no. 6: 6-7 Je '64.

HUNGARY

ALDASY, Pal, Dr., Candidate of Veterinary Sciences, MATE, Zsuzsanna, Dr., and VANYI, Andras, Dr., of the Institute for Animal Hygiene (Allategesz-segugyi Intezet) in Miskolc (Director: ALDASY, Pal,), and Directorate for the State Farms in Magye Borsod-Heves (Borsod-Heves Megyei Allami Gazda-sagok Igazgatosaga)(Veterinarian-in-Chief: VANYI, Andras)[location not given].

"Investigations on the Viral Gastroenteritis in Pigs"

Budapest, Magyar Allatorvosok Lapja, Vol 21, No 6, Jun 1966, pp 247-251.

Abstract: A viral gastroenteritis epidemic occurred during the spring of 1965 in ten units of six State farms. This disease has not been previously observed in pigs in Northern Hungary. The findings were described and discussed with especial emphasis on epidemological and diagnostic factors. After a period of about one month the epidemic subsided as fast as it broke out. It was not possible to trace the route of the infestation. Some histological data obtained in the investigations was presented. 14 references, including 1 German, 1 Japanese, 3 Hungarian, and 9 Western.

1/1

KOROS, Zoltan, dr.; HARTAI, Ferenc, dr.; MATE-WOJCINSKA, Urszula; SELLEI, Camillo, dr.

Data on the mechanism of action of Degranol. Magy onk. 8 no.1: 18-23 Mr'64.

1. Az Orszagos Onkologiai Intezet Belosztalya laboratoriumma es a Chinoin Gyogyszer es Vegyeszeti Termekek Gyara Technologiai laboratoriuma.

MATECKI, J.

The organization of active rest for flying personnel on flight days. [illegible]

WOJSKOWY PRZEGLĄD LOTNICZY. (Dowództwo Wojsk Lotniczych) Warszawa, Poland. Vol. 12, no. 3, Mar. 1959.

Monthly list of East European Accessions (EEAI) LC, Vol. [illegible], no. 7, July [illegible].

Uncl.

KLIMEK, Rudolf; MATECKI, Tadeusz

Primary ovarian pregnancy. Gin. polska 32 no.4:449-453 '61.

1. Z I Kliniki Poloznictwa i Chorob Kobiecych AM w Krakowie Kierownik: prof. dr S. Szwarz Z Zakladu Anatomii Patologicznej AM w Krakowie Kierownik: prof. dr J. Kowalczykowa
(PREGNANCY ECTOPIC case reports)

SCHWARZ, Stefan. ZAMELLO, [illegible] KLIMEK [illegible] MARCZYNSKI, Ka[illegible]
MATECKI, [illegible] MILEWI[illegible]Z [illegible] SOLARZ, E[illegible]

Statis[illegible] a[illegible] [illegible] of the [illegible] Obst[illegible]rical and [illegible] A[illegible] of Medicine in Krak[illegible] [illegible] Ja-F'[illegible]

1. Z I Kliniki P[illegible] K[illegible] AM w Krak[illegible] kierownik: prof.dr.med. S.S[illegible]

*

R/005/62/000/001/002/003
D014/D105

621.372.(064.2.039.1147)

AUTHOR: Mateescu, Adelaida, Engineer

TITLE: Considerations on modern designing methods of electric filters

PERIODICAL: Telecomunicatii, no. 1, 1962, 25 - 30

TEXT: The article briefly presents the principles of modern electric filter theories without taking into consideration the problems of transition conditions, the approximation of the phase characteristics, the time synthesis, the influence of losses and the case of some special filters. To design a filter with a given behavior, the following technical requirements have to be fulfilled: (1) optimum approximation of the attenuation or transfer characteristics given with a frequency function, to which a real electric circuit should correspond; (2) synthesis of the function which approximates the characteristic given under the shape of a physically realizable electric circuit; and (3) selection of the most adequate circuit. The method of frequency transformation is often used in the synthesis of electric filters. When the synthesis of low-pass filters has been worked out, the solution obtained can also be

Card 1/4

applied for other types of filters. The first step in designing a filter is the approximation of the filter characteristics. The problem may be solved by using the Chebyshev criterion. The position of the poles established by a supplementary condition, i.e. the absolute value of the fractions standardized by Chebyshev

$$\hat{F}(x)=\cos\left[(l-1)\arccos x+\sum l_k \arccos\frac{\alpha_k x-1}{\alpha_k-x}\right], \qquad (6)$$

valid within the approximation field, or

$$\hat{F}(x)=\cos\left[(l+1)\operatorname{Ar\,ch} x+\sum l_k \operatorname{Ar\,ch}\frac{\alpha_k x-1}{\alpha_k-x}\right]. \qquad (7)$$

Card 2/4

Considerations on modern designing methods ...

valid for values beyond the approximation field, should not drop beyond the approximation field below the given limit λ. This problem may be solved by the so-called "third problem of Zolotarev". The most frequently used parameters for the determination of the filters are (a) working parameters, and (b) image parameters. The article deals only with symmetric and antisymmetric filters. The author briefly describes the calculation of electric filters by these two methods and refers to S. Cogan who recently established some formulas for the technical calculations of the image parameters. Comparing the two methods, the author came to the conclusion that the optimum variation of the echo attenuation in the pass-band may be selected by the working attenuation method. By the image-parameter method, the optimum variation of the attenuation in the pass-band is obtained by selecting the cell with the optimum image impedance, without obtaining a Chebyshev-type behavior for the composed attenuation a_c in the pass-band. In the stop-band, both methods lead to optimum characteristics. Although from the performance point of view the designing of filters by the composed attenuation is more advantageous, the great number of complicated calculations represents a draw-back. The image-

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Considerations on modern designing methods ...

parameter method is simpler and faster, and may be used where no exceptional performances are required. There are 7 figures and 4 references: 2 Soviet-bloc, 1 non-Soviet-bloc and 1 unidentified. The reference to the English-language publication reads as follows: W. Cauer, "Synthesis of Linear Communication Networks", Mc Graw-Hill, Book Comp. Inc., London, 1958.

Card 4/4

MATEESCU, Adelaida, ing.

Influence of the variation of elements on the parameters of the picture, in dephasing X circuits. Telecomunicatii 7 no.1:18-25 Ja-F '63.

L 1220-66

ACCESSION NR: AP5025823 RU/0005/65/000/004/0106/0113

AUTHOR: Mateescu, Adelaida (Engineer) 16

TITLE: Susceptibility of the all-pass circuit operating parameters to the variation of circuit elements

SOURCE: Telecomunicatii, no. 4, 1965, 106-113

TOPIC TAGS: circuit theory, circuit design

ABSTRACT: The effect of small variations in circuit elements on the operating parameters of all-pass circuits. The author shows how to calculate the degradation of the circuit parameters with time if the variation with time of the components (e.g., wearing out) is known, as well as how to calculate allowable tolerances for the components in terms of the desired circuit parameters. Orig. art. has: 5 figures, 69 formulas and 4 graphs.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EC

NR REF SOV: 002 OTHER: 011 JPRS

Card 1/1

MATEESCU, C

TECHNOLOGY

PERIODICAL: REVISTA INDUSTRIEL ALIMENTARE, PRODUSE VEGETALE No. 9 1958

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Uncl.

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COUNTRY : ROMANIA

CATEGORY : Chemical Technology. Chemical Products and Their Applications. Fermentation Industry

ABS. JOUR. : [illegible]

: [illegible]

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[illegible]

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Vol. 2, no. 2, Feb. 1954
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Source: East European Accessions List (EEAL), LC, Vol, 5, No. 2
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Monthly List of East European Accessions (EEAI) LC Vol. 8, no. 8, August, 1959

Uncl.

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New methods for determining the distribution of speeds in the uniform flow of viscous fluids. p. 991.

Academia Republicii Populare Romine. Institutul de Mecanica Aplicata. STUDII SI CERCETARI DE MECANICA APLICATA. Bucuresti, Rumania. Vol. 8, no. 4, 1957.

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Uncl.

Distr: 4E4

✓ 2990. Meteescu, Cr., New methods for the determination of velocity distribution in steady laminar flow of viscous fluids (in English), *Acad. Repub. Pop. Romine, Rev. Mecan. Appl.* 3, 2, 41-60, 1958.

Paper concerns the determination of velocity distribution in the laminar flow of a viscous fluid, through approximate methods applicable to steady motions. A first procedure proposed belongs to the general class known as relaxation methods and uses a curvilinear network. Each mesh of this network is considered to be the cross section of a stream tube. The finite difference equations are obtained directly from the motion equations written for each of these tubes. The approximations introduced are then discussed and a few examples are given.

The second procedure consists in superimposing two steady uniform motions in rectilinear tubes, having the same piezometric line and the same viscosity. The velocity distribution for motions whose boundaries differ from those of the initial motions is thereby obtained. Considerations on the equal velocity curves are finally presented.

T. Oroveanu, Roumania

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RUMANIA / Chemical Techhology. Chemical Products and Their Application, Chemical Engineering. H

Abs Jour: Ref Zhur-Khimiya, No 12, 1959, 42588.

Author : Mateescu C.
Inst : Not given.
Title : Certain Properties of Constant Velocity Flow Patterns in the Movement of Liquids Through Pipes and Channels.

Orig Pub: Comun. Acad. RPR, 1958, 8, No 5, 479-485.

Abstract: Characteristics of constant velocity flow patterns are reviewed for cross sectional areas involved in viscous and turbulent flow of liquids. A method of plotting such characteristics based on the flow rate results is presented. -- Z. Khaimskiy.

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Economical, technical and scientific study on the construction of some apartment houses with metallic framework of light elements. Pt. 1-3. Bul St si Tehn Tim 7:287-321 '62.

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Scheme for rationalization of the assortment of laminated products. p. 162.

Vol. 7, no. 264, June 1955
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Bucuresti, Rumania

Source: East European Accession List. Library of Congress
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REVISTA CONSTRUCTILOR SI A MATERIALELOR DE CONSTRUCTII. Vol. 10, no. 9, Sept. 1958.

The optimum height for truss girders. p.588.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, No. March 1959, Unclass.

MATHESCU, D.; CARAFOLI, E.

Supersonic flow around the system carrying a conic wing fuselage. In French. p.377.

REVUE DE MECANIQUE APPLIQUEE. (Academia Republicii Populare Romine. Institutul de Mecanica Aplicata)
Bucuresti, Rumania
Vol. 4, no. 3, 195[illegible].

Monthly list of Eastern European Accession Index (EEAI) LC vol. [illegible], no. 11
November 1959
Uncl.

R/008/60/000/001/001/009
A125/A026

10.6120

AUTHORS: Carafoli, Elie and Mateescu, Dan

TITLE: General Method of Determining the Interference of Wing and Conical Fuselage in Supersonic Regime

PERIODICAL: Studii şi Cercetări de Mecanică Aplicată, 1960, No. 1, pp. 11-47

TEXT: In a previous work (Ref. 1), the authors presented a method of solving the problem of supersonic flow around a wing/conical fuselage system. In subject article, this method is extended to the case of a wing with edges on which there are incidence and inclination leaps, thus establishing a general method of solution of the supersonic flow around the wing/conical fuselage system. Considered is a wing/fuselage system (Fig. 1), where the fuselage axis has the incidence α_0 against the undisturbed flow U_∞, and the wing has a constant incidence and inclination. The authors assume that the fuselage has reduced dimensions against the Mach cone ($B^2c^2 \ll 1$), that the incidence and the inclination, as well as the α_0 incidence of the fuselage are small enough for the application of the theory of small disturbances. The stream around this system can be decomposed into: I) symmetric axial stream around the isolated

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General Method of Determining the Interference of Wing and Conical Fuselage in Supersonic Regime

conical fuselage without incidence; II) motion around the conical fuselage/thin wing system; and III) motion around the conical fuselage/symmetric thick wing system. The authors treat the last two motions and first present the usual notations and formulae. For the solution of the problem they deduce the boundary conditions of the function $\mathcal{U}$. Based on the function (13) and the compatibility relation, the solution of the motion is expressed by (14). The boundary conditions are now more simple and can be expressed by (15), (16), (17) and (18). Based on the conform transformation (3), the relation (19) is obtained for the X plane, from which result the boundary conditions (20), (21), (22) and (23) in the X-plane (Figs. 3a, b, c). The function $\mathcal{U}_a$ presents the same singularities (24), (25) and (26), and satisfies the boundary condition (23) as the function $\frac{dF}{dX}$, thus: $\frac{dF}{dX} = \mathcal{U}_a$, (29). Replacing $\frac{dF}{dX}$ by its value from (19) in the relation (14), the axial disturbance speed u, which is a real part of the expression (30) is obtained. $\mathcal{U}_a$ and $\mathcal{U}_a$ of this expression represent the solution of the conical stream around the fictive wing. Thus, the problem of the supersonic stream around the wing/conical fuselage system has been re

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R/008/60/000/001/001/009
A125/A026

General Method of Determining the Interference of Wing and Conical Fuselage in Supersonic Regime

duced to a conical stream around a fictive, isolated wing with variable incidence In paragraph 3, the authors determine the solution of the problem for different particular cases selected in such a way that, adding the effects, the solution of the general case of the wing/conical fuselage system could easily be determined if the wing incidence is constant on the sections. They first treat the case, where the whole system has the same incidence and then some cases where the wing has incidences on the sections which are different from that of the wing. The following particular cases are examined: 1) The wing and the fuselage have the same α_0 incidence; 2) The wing has an α_0 incidence on the M_1A_1 section, the rest of the wing and the fuselage axis having no incidence; 3) The wing has an incidence α_2 on the A_2M_2 section, the rest of the wing and the fuselage axis having no incidences; 4) The wing has an α incidence on the A_2M_2 and A_1M_1 sections, the rest of the wing and the fuselage axis having no incidence; 5) The whole wing has an α incidence, the fuselage axis having no incidence; and 6) Application examples, where the authors present the expressions of the axial-disturbance speeds for the most interesting cases. Finally

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A125/A026

General Method of Determining the Interference of Wing and Conical Fuselage in Supersonic Regime

they treat the motion around a conical fuselage/symmetric thick wing system (Fig. 4). There are 3 figures and 3 references: 1 Rumanian, 1 English and 1 Austrian (German).

SUBMITTED: October 29, 1959

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84648

10 6120 3515, 2510, 2207

R/008/60/000/002/001/007
A125/A026

AUTHORS: Carafoli, Elie, and Mateescu, Dan

TITLE: Supersonic Flow Around a Conical Cross-Wing/Fuselage System

PERIODICAL: Studii şi Cercetări de Mecanică Aplicată, 1960, No. 2, pp. 325-337

TEXT: The authors treat the problem of flow around a conical cross-wing - fuselage system provided with a normal plate (Fig. 1), for the case where the leading edges of the wing and of the plate are subsonic and the angle of imidence of the fuselage differs from those of wing and normal plate. The study starts from the hypothesis of minor disturbances, taking into account that the dimensions of the fuselage are small enough in relation to the Mach cone, and that the angles of incidence of wing, normal plate and fuselage are also sufficiently small. The general flow around the system investigated is decomposed into three movements: the 1st is the axial-symmetric flow around the bare conical fuselage - which is known -, the 2nd is the flow around the system symmetric plate/fuselage - which was the object of another paper by the same authors (Ref. 1), and the last one is the flow around the system cross-wings/fuselage, with the plate and the fuselage being without lateral angles of incidence; this latter movement is the sub-

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R/008/60/000/002/001/007
A125/A026

Supersonic Flow Around a Conical Cross-Wing/Fuselage System

ject of this paper. The problem is referred to a conveniently chosen plane where it is reduced to the problem of determining two simple movements: a conical one around a very thin cross-wing, and a plane one around a circle. The authors give the general expression for the axial speed of disturbance u, indicating the method of determining the constants. There are 3 figures and 4 Rumanian references; 2 of these were published in English and 2 in French.

SUBMITTED: February 12, 1960

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20564

10 6120

R/008/60/000/001/001/009
D256/D301

AUTHORS: Carafoli, Elie, and Mateescu, Dan

TITLE: A general method for determining the interference between the wing and conical fuselage in a supersonic state

PERIODICAL: Studii şi cercetări de mecanică aplicată, no. 1, 1960, 11-47

TEXT: In a previous work, the authors (Ref. 1: Scurgerea supersonică în jurul sistemului portant aripă-fuzelaj conic (Supersonic Flow around a Wing-Conical Fuselage Lifting System), Studii şi cercetări de mecanică aplicată, X, 2, 1959) presented a method of solving the problem of supersonic flow around a wing-conical fuselage lifting system. In the present article this method is extended to the case of a wing with edges, on which there are incidence and inclination leaps, thus establishing a general method of solv-

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ing the wing-conical fuselage system. Considered is a wing-fuselage system as shown in Fig. 1, the fuselage axis having an angle of attack α_o against the non-distrubed flow U_∞, and the wing having a constant angle of attack and inclination. The authors assume that the fuselage has low dimensions against the Mach cone, i.e. $B^2c^2 \ll 1$, that the angle of attack and the inclination, as well as the α_o angle of attack of the fuselage are small enough to apply the theory of small disturbances. In this case, the stream around this system can be broken down into: I) symmetric axial stream around the isolated conical fuselage without angle of attack; II) motion around the conical fuselage - thin wing system; and III) motion around the conical fuselage - symmetric thick wing system. The authors treat the last two motions: U_∞ = velocity of the undisturbed flow; a_∞ = speed of sound in infinite conditions; $M_\infty = \frac{U_\infty}{a_\infty}$: Mach number; $B = \sqrt{M_\infty^2 - 1}$; $Ox_1x_2x_3$ = system of orthogonal

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coordinates, the Ox_1 axis being directed according to the fuselage axis (Fig. 1); $y = \frac{x_2}{x_1}$, $z = \frac{x_3}{x_1}$: coordinates of the oy_3 physical plane ($x_1 = 1$, Fig. 1); $\omega\eta\xi$ = Busemann's plane, obtained by transformation

$$Br = \frac{2\rho}{1+\rho^2},\ \theta = \theta,\ (r^2 = y^2 + z^2,\ \rho^2 = \eta^2 + \zeta^2); \qquad (1) \qquad (1)$$

oy_3 = auxiliary plane obtained by the conform transformation:

$$Bx = \frac{2\xi}{1+\xi^2},\ (x = y + iz,\quad \xi = \eta + i\zeta); \qquad (2) \qquad (2)$$

OYZ = auxiliary plane obtained by the conform transformation:

$$X = x + \frac{c^2}{x},\ x = \frac{X + \sqrt{X^2 - 4c^2}}{2},\ X = Y + iZ, \qquad (3) \qquad (3)$$

in which c is the radius of the circular section of the fuselage

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in the $x_1 = 1$ plane; u, v, w = components of disturbance speed according to the Ox_1, Ox_2, Ox_3 axes which are harmonic functions in the ξ, x, X planes; and $\mathcal{U} = u + iu'$, $\mathcal{V} = v + iv'$, $\mathcal{W} = w + iw'$: analytic functions, between which the compatibility relations

$$d\mathcal{U} = - xd\mathcal{V} = \frac{ixd\mathcal{W}}{\sqrt{1 - B^2x^2}} \qquad (4)$$

can be written. The authors then present the calculation method, considering the conical fuselage - thin wing system, the fuselage axis having an α_0 angle of attack, and the wing an α_i angle of attack constant on the portions (i = 1, 2, 3, ...). The wing has the leading edge in A_1 ($y = l_1$, $z = 0$), and A_2 ($y = - l_2$, $z = 0$) and has incidence leaps on the edges from the points M_i ($y = s_i$, $z = 0$), in which i = 1, 2, 3, ... The boundary conditions in this case are:

$$v\cos\theta + (w - \alpha_0 U_\infty)\sin\theta = \omega_n \approx 0, \qquad (5)$$

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on the circle of a c radius which represents the trace of the fuselage in the oyz physical plane, and

$$w = \alpha_i U_\infty = \text{const.}, \quad (i = 1, 2, 3, \ldots), \tag{6}$$

on different portions of the wing's trace. The boundary conditions on the rest of the oy axis and on the Mach circle are the same as in the case of an isolated thin wing. The disturbance speeds u and v have the same peculiarities on the leading edges of the wing which represent incidence leaps, as in case of the isolated thin wing. Thus, the functions $\mathcal{U} = u + iu'$ and $\mathcal{V} = v + iv'$ tend towards infinite in these points as expressions:

$$\frac{1}{\sqrt{l_1 - x}}, \quad \frac{1}{\sqrt{l_2 + x}}, \tag{7}$$

if the leading edges are subsonic; or as expressions:

$$\ln (l_1 - x), \quad \ln (l_2 + x) \tag{8}$$

if the leading edges are supersonic; and finally as expressions:

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$$\ln (s_i - x) \tag{9}$$

if there is an edge located in the $x = s_i$ point. To solve the problem, the authors deduce the boundary conditions of the function v. Based on the compatibility relations (4) and still considering the fuselage section's radius in the oyz physical plane being very small against the Mach circle, they deduce

$$-dv' \approx dw, \qquad v' + w = k_0 = \text{const.} \qquad (10) \tag{10}$$

on the circle with a radius c, in the x plane, as shown in Fig. 2 a, b, c. Taking, on the other hand, relation (6) into consideration, they deduce

$$-dv' = \frac{dw}{\sqrt{1 - B^2 y^2}} = 0, \quad v' = k_i = \text{const.}, \quad (i = 1, 2, 3, \ldots, n) \quad (11) \tag{11}$$

on different subsonic portions of the wing, and

$$dv = \frac{dw}{\sqrt{B^2 y^2 - 1}} = 0, \quad v = K_j = \text{const.}, \quad (j = n+1, n+2, \ldots), \quad (12) \tag{12}$$

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on different supersonic portions of the wing. Considering as in (Ref. 1:Op.cit.) function

$$\frac{dF}{dz} = \mathcal{V} - i(k_0 - a_0 U_\infty), \qquad (13) \qquad (13)$$

and relation (4), the solution of the motion will be expressed by

$$\mathcal{U} = -x\frac{dF}{dz} + F. \qquad (14) \qquad (14)$$

The boundary conditions are now simpler and can be expressed by

$$\mathcal{R}e\, x\frac{dF}{dz} = 0 \qquad (15) \qquad (15)$$

on the circle of a radius c, or by

$$\mathcal{I}m\frac{dF}{dz} = K_i = \text{const.}, \quad (i = 1, 2, 3, \ldots, n), \qquad (16) \qquad (16)$$

on different portions of the segment (max $\left[-\frac{1}{B}, -1_2\right] < y < -c$,

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$z = 0$), or of the segment ($c < y < \min\left[\frac{1}{B}, l_1\right]$, $z = 0$); or by:

$$\mathcal{R}e\,\frac{dF}{dx} = K_j = \text{const.}, \quad (j = n+1, n+2, \ldots), \tag{17}$$

(17)

on different portions of the segment ($-l_2 < y < -\frac{1}{B}$, $z = 0$), if $l_2 > \frac{1}{B}$, or on the segment ($\frac{1}{B} < y < l_1$, $z = 0$), if $l_1 > \frac{1}{B}$; and finally by

$$\mathcal{R}e\,\frac{dF}{dz} = 0 \tag{18}$$

(18)

on the semi-straight-lines ($y < -l_2$ and $y > l_1$, $z = 0$). Based on transformation (3), relation

(19)

$$\frac{dF}{dX} = \varpi\frac{dF}{dz}\frac{1}{x - \frac{c^2}{x}} = \frac{1}{2}\left(1 + \frac{X}{\sqrt{X^2 - 4c^2}}\right)\frac{dF}{dz}, \tag{19}$$

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is obtained for the X plane, whence result the boundary conditions:

$$\mathcal{I}m\frac{dF}{dX} = 0 \qquad (20) \qquad (20)$$

on the ($-2c < y < 2c$, $Z = 0$) segment;

$$\mathcal{I}m\ \frac{dF}{dX} = \frac{K_i}{2}\left(1 + \frac{Y}{\sqrt{Y^2 - 4c^2}}\right),\ (i = 1, 2, \ldots, n), \qquad (21)$$

on the different portions of the segments ($\max\left[-\frac{1}{B}, -L_2\right] < Y <$ $< -2c$, $Z = 0$) and ($2c < Y < \min\left[L_1, \frac{1}{B}\right]$, $Z = 0$);

$$\mathcal{R}e\ \frac{dF}{dX} = \frac{K_j}{2}\left(1 + \frac{Y}{\sqrt{Y^2 - 4c^2}}\right),\ (j = n + 1, n + 2, \ldots) \qquad (22)$$

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on the different portions of the segments $(-L_2 < Y < -\frac{1}{B},\ Z = 0)$, if $L_2 > \frac{1}{B}$, and $(\frac{1}{B} < Y < L_1,\ Z = 0)$, if $L_1 > \frac{1}{B}$; and finally

$$\mathrm{Re}\ \frac{dF}{dX} = 0 \tag{23}$$

on the semi-straight-lines ($Y < -L_2$ and $Y > L_1$, $Z = 0$). For the function $\frac{dF}{dX}$, there result in the corresponding points of the leading edges the peculiarities

$$\frac{1}{\sqrt{L_1 - X}},\qquad \frac{1}{\sqrt{L_2 + X}} \tag{24}$$

if the leading edges are subsonic, and respectively

$$\ln (L_1 - X),\quad \ln (L_2 + X), \tag{25}$$

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A general method for determining ... if the leading edges are supersonic, as well as $\ln (S_i - X)$ (26)

in the leap points $X = S_i$. The magnitudes L_1, L_2 and S_i are given by

$$L_1 = l_1 + \frac{c^2}{l_1}, \quad L_2 = l_2 + \frac{c^2}{l_2}, \quad S_i = s_i + \frac{c^2}{s_i}. \qquad (27) \qquad (27)$$

Considering now in the X plane a fictive conical motion with the disturbance speeds $u_a = \mathrm{Re}\, U_a$, $v_a = \mathrm{Re}\, V_a$ and $w_a = \mathrm{Re}\, W_a$, which satisfy the relations

$$dU_a = -XdV_a = \frac{iXdW_a}{\sqrt{1-\mathcal{B}^2X^2}}, \quad \left(\frac{1}{\mathcal{B}} = \frac{1+Bc^2}{B}\right). \qquad (28) \qquad (28)$$

also considering that the leading edges of the fictive wing are located in the same points $X = L_1$ and $X = -L_2$ and that the fictive

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wing has the same edges in the points $X = S_i$ ($i = 1, 2, 3, \ldots, n$), the v_a function presents the same peculiarities (24), (25) and (26) and satisfies the same boundary conditions (23) as the functions $\frac{dF}{dX}$, thus:

$$\frac{dF}{dX} = v_a, \tag{29}$$

Replacing in the relation (14) $\frac{dF}{dX}$ by its value from (19), one obtains the axial disturbance speed u, which is a real part of

$$u = u_a + \frac{2c^2}{x} v_a, \tag{30}$$

in which u_a and v_a represent the solution of the conical flow around the fictive wing. Thus, the problem of the supersonic flow around the wing - conical fuselage system is reduced to a conical flow around a fictive, isolated wing with variable angle of attack.

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The authors then determine the solution of the problem for different particular cases selected in such a way that, by adding the effects, the solution of the general case of the wing-conical fuselage system could easily be determined if the wing's angle of attack is constant on the sections. The following cases are treated: 1) The wind and the fuselage have the same angle of attack α_0; 2) The wing has on the M_1A_1 section an angle of attack α_1, the rest of the wing and the fuselage's axis having no angle of attack; 3) The wing has on the A_2M_2 section an α_2 angle of attack, the rest of the wing and the axis of the fuselage having no angle of attack; 4) The wing has the same angle of attack α on the A_2M_2 and M_1A_1 sections, the rest of the wing and the fuselage's axis having no angle of attack; 5) The whole wing has an angle of attack of α and the fuselage's axis having no angle of attack. By using the principle of adding the effects, one may easily determine the solution in the general case when the wing's angle of attack is con-

A general method for determining ...

stant on the sections: a) If the whole wing has the same angle of attack α, and the fuselage has an angle of attack α_0, the axial disturbance speed is given by

$$u = \frac{C_0 l_1 l_2 \left(1+\frac{c^2}{l_1^2}\right)\left(1+\frac{c^2}{l_2^2}\right) - 2c^2\left(1+\frac{c^2}{x^2}\right) + \frac{l_1-l_2}{2}\left|\left(1-\frac{c^2}{l_1 l_2}\right)\left(x+\frac{3c^2}{x}\right) + \frac{2c}{\pi}\frac{x}{C_0}\sqrt{l_1 l_2}\left(x-\frac{c^2}{x}\right)\right|}{\sqrt{(l_1-x)(l_2+x)}\sqrt{\left(1-\frac{c^2}{l_1 x}\right)\left(1+\frac{c^2}{l_2 x}\right)}} \quad (91)$$

$$-\frac{2\varkappa c}{\pi}\left(1-\frac{c}{x}\right)\operatorname{arg\,ch}\sqrt{\frac{(L_1-X)(L_2+2c)}{(L_1+L_2)(2c-X)}} -$$

$$-\frac{2\varkappa c}{\pi}\left(1+\frac{c}{x}\right)\operatorname{arg\,ch}\sqrt{\frac{(L_2+X)(L_1+2c)}{(L_1+L_2)(2c+X)}} - \frac{l\varkappa c^2}{x}, \quad (91)$$

in which $\varkappa$, however, has the value of

$$\varkappa = \frac{(\alpha_0 - \alpha)\, U_\infty}{\sqrt{1 - B^2 c^2}} \quad (94)$$

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A general method for determining ...

b) If the wing has an angle of attack α_1 on the A_2M_2 and M_1A_1 sections and an angle of attack α_2 on the M_2N_2 and N_1M_1 sections, and the fuselage has an angle of attack α_0, as well as the wing having a geometrical symmetry against the fuselage axis, i.e. $l_1 = l_2 = l$, and $s_1 = s_2 = s$, the solution where the leading edges are subsonic is given by

$$u = \frac{C + 2c^2D' + C'x + (C' + 2D)\frac{c^2}{x} + 2D'\frac{c^4}{x^2}}{\sqrt{l^2 - x^2}\sqrt{1 - \frac{c^4}{l^2x^2}}} - \frac{2\varkappa c}{\varkappa}\left(1 - \frac{c}{x}\right) \operatorname{arg\,ch} \sqrt{\frac{(L - X)(L + 2c)}{2L(2c - X)}} - \frac{2\varkappa c}{\varkappa}\left(1 + \frac{c}{x}\right) \operatorname{arg\,ah} \sqrt{\frac{(L + X)(L + 2c)}{2L(2c + X)}} - \frac{i\varkappa c^2}{x} -$$

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